ABSTRACT

A beverage brewing system (10) having a controller (52) responsive to a comparison of preselected values of total brew water and total diluent water stored in a program memory (62) and to actual quantities measured by one or two flow meter (36, 36') to control operation of a brew valve (46) passing water to a hot water tank (14) and a diluent valve (50) for passing water directly to a mixing chamber (28). The controller is also responsive to a level sensor (20) to control the brew valve (46) to keep the hot water tank filled with water. A heating element (17) keeps the water in the hot water tank (14) heated to a preselected temperature, and when cold water from a source (30) is passed to a bottom inlet (47) hot water at the top of the hot water tank (14) is forced out of a siphon connection (56) at the top of the hot water tank (14) and passed through a spray head (22) to a brew basket (24) containing the beverage ingredient, such as tea. The preselected amounts may be changed for different brewing conditions to obtain different total quantities of beverage or different ratios of hot brew water passed through the brew basket (24) to cold diluent water passed directly to the mixing chamber, or serving urn (28).